

To minimize the potential for ILEC attrition of CLEC assets in order to hinder competitive entry, the following parameters therefore should apply to UNE Identification and UNE Exemption proceedings.

UNE Identification Proceedings

- UNE Identification proceedings may be started by the Commission or state commission *sua sponte* or in response to a petition. These petitions shall be put out for public comment. The subsequent UNE Identification proceeding should be completed within nine months of initiation.
- A strong rebuttable presumption will exist for elements already ordered by a state commission or listed in the Section 271 checklist. The ILEC should bear the burden of proof and production in rebutting this strong presumption by clear and convincing evidence. This “best practices” approach builds upon the Commission’s new collocation and interconnection rules.
- For other UNEs (those not already ordered by a state commission or listed in Section 271), a lower rebuttable presumption in favor of unbundling should apply. The ILEC should bear the burden of proof and production in rebutting this presumption by substantial evidence.
- ILECs and CLECs must have the ability to subpoena records and compel testimony. Redacted public and non-public briefs would be filed before the Commission.
- The Commission or state commission would make its decision based upon the three-factor test articulated above (“necessary” and “impair” factor,

promotion of rapid entry into local markets, and promotion of competitive broadband deployment). While each factor should receive consideration, not all three factors have to be satisfied to order unbundling of the element.

*UNE Exemption Proceedings*⁵⁴

- The clear presumption is in favor of maintaining the UNE.
- ILEC must file a *prima facie* case with the Commission (during the Biennial Regulatory Review) or the state commission (where appropriate)⁵⁵ in which it: (1) identifies the particular element it seeks to receive an exemption (including the proprietary aspect, if the ILEC is seeking to invoke Section 251(d)(2)(A)); (2) describes in detail—on at least a central office-by-central office basis—the geographic scope of the requested exemption; (3) identifies, on at least a central office-by-central office basis, no fewer than four alternative sources of supply for substitute combine that have sufficient capacity to supply all wholesale demand for the element;⁵⁶ and (4) demonstrates that a wholesale market for those substitutes exists, complete

⁵⁴ As discussed in Section I.B above, rather than unleash a cornucopia of case-by-case petition, Covad believes that the preferred forum for “UNE Exemption” proceedings is the FCC’s Biennial Regulatory Review. However, the following proposals should be adopted by the Commission if the Commission determines that it will permit petitions for exemptions.

⁵⁵ As discussed in Section I.B above, Covad does not believe that the law permits, or sound public policy allows, the Commission to delegate the responsibility “de-commission” national UNEs to state commissions. Covad includes this reference to state commissions only in the event the Commission decides that state commissions are to have a role in this process. As described above, if the Commission does permit the states to play a role in this UNE Exemption process, it should limit the state role to making preliminary decisions and findings, which the Commission must subsequently ratify.

⁵⁶ As described above, “reasonable substitutes” if the ILEC is invoking the “necessary” consideration; “seamlessly interchangeable substitutes” if the ILEC is invoking the “impair” consideration. As described in Section I.A above, Covad does not believe that the Commission should engage in “nose-counting” to determine whether a competitive wholesale market exists. That said, requiring that the ILEC provide

with the ILEC's estimate (including supporting documentation) of the "market price" for those alternatives. The Commission may immediately reject any non-specific filings for "relief" or "waivers" that do not contain this *prima facie* case.

- The public will be permitted at least sixty days to file public comments on the ILEC *prima facie* case. After that public comment period, the Commission or state commission (where appropriate) must decide whether the ILEC has met its *prima facie* case before permitting the UNE Exemption case to proceed.
- In the subsequent phase, the ILEC will bear the burden of proving with clear and convincing evidence that an alternative, competitive, and wholesale source of supply of the substitute ("reasonable substitute" for proprietary element; "seamlessly interchangeable substitute" for other elements) is available for every potential CLEC application.
- In order to meet its burden of proof, the ILEC would have the ability to subpoena records and testimony, provided that the ILEC must fully compensate other parties for costs involved in producing those records and making witnesses available for testimony. This requirement would ensure that ILECs only pursue credible UNE Exemption cases. Given the obvious competitive sensitivity of the data sought, only outside counsel for the ILEC should be permitted to receive discovery from CLECs, subject to a strong

evidence of multiple sources of supply capable of serving the market as part of the *prima facie* case would deter spurious ILEC filings.

protective order. Similar discovery on ILEC records and witnesses would be permitted to other parties. Redacted public and non-public briefs would be filed before the Commission.

- If the ILEC that initiated the UNE Exemption proceeding fails to convince the Commission to grant the requested exemption, the ILEC will fully compensate all opposing parties for their complete costs in defending availability of the UNE in *both* phases of the proceeding.

Covad believes that these procedural parameters—especially those involving burdens and costs for UNE Exemption proceedings—are important in order to provide a “check” against ILEC abuse of the process. CLECs should not have to be in the position of continually defending their entry plan in litigation without some check upon ILEC’s incentive to initiate that litigation. Requirements that ILECs fully compensate CLEC costs spent in defending a UNE from exemption will prevent ILECs from unleashing a fusillade of willy-nilly, baseless petitions for exemptions or requests for “regulatory relief”

III. SPECIFIC UNBUNDLING REQUIREMENTS

Three years of experience under the current old Rule 51.319 have revealed several areas in which more precise rules and delineation of ILEC obligations coupled with timely and effective enforcement penalties that would serve all parties and the cause of competition itself.

These first three years of unbundling have revealed some surprising successes. The success of Covad and other DSL-focused CLECs has reinvigorated the potential for new

competitive entry into residential broadband markets.⁵⁷ By focusing on unbundled transport, unbundled loops and collocation, data CLECs are able to deploy advanced, xDSL services in residential neighborhoods on a nationwide basis. This plan fully leverages the economies of scale, scope and density that ILECs currently possess in their interoffice network, outside plant, and central offices in a way that brings new and innovative services to American consumers. Maintaining access to all of these elements is crucial to the continued expansion of this service.

Covad generally does not seek unbundled access to the intelligence of the ILEC network—largely because that intelligence was engineered for circuit-switched purposes and not optimized for the packet-switched data purposes Covad seeks to deploy. However, because the ILECs' dumb wires between central offices and central offices and American homes and businesses are ubiquitous, ILECs possess a unique market position. Despite only limited ILEC innovation prior to the onset of competition, ILECs even today remain the undisputed dominant provider of local telecommunications services to Internet service providers, telecommuters, businesses and residential consumers.⁵⁸ The economies of scale, scope, density and connectivity associated with this installed base of wires between central offices and between central offices and the surrounding community is powerful indeed.

In the pages that follow, Covad identifies four elements important to its entry plans—unbundled local loops, unbundled dedicated transport, DS3 customer links, and

⁵⁷ "Probably no single technology has affected this year's CLEC market as much as the rapid deployment of Digital Subscriber Line (DSL) service. . . . 1999 is going to be the year when DSL comes of age and is readily available to the mass market." *1999 Annual CLEC Report* at Ch. 9, p. 2.

⁵⁸ FCC Staff Local Competition Report at 1-2 (ILECs have more than 95% of total local service revenues, 94% of local private line services to end users, over 97% of nationwide switched access lines, and have 89% of local fiber optic system capacity).

related OSS. No doubt, other competitors will propose other elements that are consistent with their individual business plans. Covad's silence with regard to any particular element in these Comments should not be interpreted as an argument that such elements need not be unbundled—the availability of any particular element should stand on its own merits. Finally, although Covad argues in Section II.B above that ILECs should bear the burden of proof in this proceeding, Covad presents substantial evidence of the importance and need for these particular elements in these Comments.

A. xDSL-Conditioned Local Loops

Without a doubt, unbundled local loops are an essential input to the provision of DSL services. The Commission and Commissioners have all appropriately recognized that unbundled loops, conditioned for digital services, must be available on a nationwide basis as part of FCC Rule 51.319.

The Commission ordered the unbundling of loops conditioned to support xDSL services in the *First Local Competition Order*. As described by Covad in its Comments in the *Advanced Wireline Services* proceeding, ILEC compliance with that mandate was spotty at best. Time and time again, Covad has been presented with arguments or rejections of its requests for xDSL-conditioned loops by ILECs bearing multiple excuses—“we don't know what that is;” “we're concerned about spectral interference;” “we don't provide that over long loops;” “there are no facilities to support your request”; “providing that one loop will cost you over \$2000, because I have to do some ‘special construction.’”

The time for excuses is over. It is time that the Commission establish *once and for all* that ILECs as common carriers must provide unbundled access to xDSL-conditioned

loops *throughout* their service territories. Every end-user that wants competitive broadband service over common carrier facilities should be able to receive that service—without hearing monopoly excuses and evasion.

1. Unbundled Loops Clearly Meet the UNE-Identification Test

Applying the factors outlined by Covad above clearly demonstrate the need for a national unbundled loop rule.

The Necessary and Impair Considerations. Quite simply, for the provision of xDSL services, there are no sufficient alternatives to the local loop, let alone a competitive wholesale market of “reasonable substitutes” or “seamless interchangeable substitutes”, the necessary and impair standard proposed by Covad in Section II.A above.

Denying CLECs access to even one unbundled digital loop simply makes it impossible for that CLEC to provide a broadband service utilizing xDSL technology.⁵⁹ A CLEC seeking to provide xDSL services on a national basis would, by definition, be unable to provide its service if access to those loops is not universally available. That CLEC also would be unable to provide xDSL to a particular end-user over that user’s particular loop if the ILEC refuses to make that loop xDSL-compatible at a forward-looking (TELRIC) price.

Covad is not aware of *any* company that has even tried to “overbuild” the ILEC copper loop plant with similar copper loop infrastructure on such a scale to replicate the

⁵⁹ Covad focuses these comments upon the “impair” standard, as it is not aware of any ILEC that has argued that unbundling loops would involve any proprietary aspect. Covad reserves the right to make comments on the applicability of the “necessary” and “proprietary” terms in the event ILECs do raise such an argument.

ILEC's economies of scale, scope, density and connectivity.⁶⁰ ILECs may attempt to argue that the presence of fiber rings, broadband wireless, or upgraded cable plant provide alternative "broadband" infrastructure, but those infrastructures are (a) not substitutes for xDSL access services, which require copper outside plant; and (b) are not nearly as ubiquitous as ILEC copper plant infrastructure. The difference between the economies ILECs enjoy and CLEC end-to-end network is clearly demonstrated by CLEC penetration. A recent report states that CLECs only serve 104,097 buildings on their own exclusive networks of fiber, broadband wireless, or hybrid fiber-coax.⁶¹

Certainly, the availability of broadband infrastructure must be determined from the perspective of the individual end-user that wants to obtain competitive xDSL services. At present, there is not only no actual, competitive, wholesale market for substitutes to ILEC outside copper loop plant. Denial of access more than satisfies the standard proposed by Covad in Section II.A. Therefore, a national rule ordering the unbundling of loops conditioned for xDSL services is clearly warranted.

⁶⁰ Local loop/outside plant construction and maintenance demonstrate classic scale economies—it is less expensive per line to roll and maintain a cable comprised of multiple binder groups than it is to string one copper loop. In areas where local topology makes trenching particularly expensive (for example, the presence lava caps), these economies of scale and density may be even larger. Local loop outside plant also possess significant economies of density. It is axiomatic that it is less expensive to wire areas with large population densities than areas with lower densities.

These scale and density economies are possessed by the incumbent LEC are substantially greater than those possessed by CLECs that lay fiber, coax or copper. CLECs who wish to pull their own fiber or copper loops face well-recognized and tremendous "start-up" costs that present significant economic barriers to entry—e.g., high construction costs, city franchise/permit process, even perhaps the cost and delay of an FCC preemption proceeding under Section 253. Although a CLEC might eventually be able to achieve some of the economies of density and scale in downtown metropolitan areas, those economies are not as great as those enjoyed by the ILEC—who have decades of a "head-start" often under monopoly conditions that precipitated access to public assets at considerably less than full cost.

⁶¹ 1999 *Annual CLEC Report*, Ch. 6, Table 10. This table includes buildings served by fiber CLECs (MCI Worldcom, NEXTLINK, and e.spire), broadband wireless providers (WinStar, Teligent), and cable providers (RCN, Cox).

National Loop Rules will Facilitate Rapid Entry and Will Promote Availability of Competitive Broadband Services to All Americans. A rule ordering national unbundling—to all locations, not just those privileged neighborhoods the ILEC “selects” to receive DSL service—would greatly promote broadband deployment to all Americans. A rule requiring universal availability of xDSL-conditioned loops would spur data CLECs to deploy services in residential and rural markets throughout the country.

It is fundamentally misguided to think that xDSL deployment by CLECs will focus upon major metropolitan areas. Covad will provide xDSL services in places like Santa Rosa, CA, Bel Aire, Maryland, the far eastern portions of Long Island, New Hampshire, and West Virginia. Other data CLECs are also deploying xDSL service in smaller markets. For example, Dakota Services, Inc. is offering its RaDSL, SDSL, and IDSL services in dozens of Midwestern towns, including Viborg, South Dakota, Waukesha, Wisconsin, and Laverne, Minnesota.⁶² Vitts Corporation provides ADSL and IDSL services in eight New Hampshire cities.

Covad and its data CLEC colleagues would be deploying further if it were not for ILEC intransigence.⁶³ These network build-outs were all predicated upon the FCC’s *First Local Competition Order* that ordered ILECs to unbundle xDSL-conditioned loops. The Commission can fuel this rapid expansion even further by implementing a “no excuses” principle of universal availability of unbundled xDSL-conditioned loops to *all* Americans.

⁶² 1999 Annual CLEC Report, Ch. 9, “The DSL Market: Market Overview and Provider Profiles.”

⁶³ For example, Bell Atlantic has taken a unique approach to unbundling xDSL-compatible loops—BA will make those loops available *only when* it seeks to provide its ADSL retail service to end users. The end result is plainly anticompetitive—CLEC expansion plans are essentially held hostage until BA is “ready” with its own competing service.

Requiring that xDSL-conditioned loops be available to every business and household requires the Commission to ensure that competitors have the ability to deploy advanced services over those loops of the customer's choosing—even if the ILEC has decided not to provide advanced services in that same neighborhood.

2. Unbundled Loop Rules

Attachment 1 contains Covad's proposed universal DSL-conditioned loop and subloop unbundling rule, 47 C.F.R. § 51.319(a)-(b). These rules accomplish several key objectives:

- Ensure universal availability of unbundled xDSL-conditioned loops to *all* customers served by a particular wire center.
- Provide a menu of solutions on how to deliver xDSL services over loops served by remote terminal (RT) or digital loop carrier (DLC) systems.
- Establish "loop-is-a-loop" pricing principles.

Each of these points will be addressed in turn.

a. Universal Availability of Conditioned Loops.

Covad's proposed rules recognize that ILEC outside plant possesses great potential for advanced services that the ILECs—due to a lack of competition—have yet to unleash. Unless CLECs are given the ability to unleash the potential of that outside plant, ILECs will continue to lack the incentive to do it themselves.⁶⁴ If existing outside loop plant has

⁶⁴ See Charles H. Ferguson, *The Internet, Economic Growth, and Telecommunications Policy* (1997) <http://www-eecs.mit.edu/people/ferguson>. In this paper, Ferguson summarizes his findings about ILECs:

The picture that emerges is of a group of powerful but slow-moving firms endeavoring to perpetuate their monopoly power (e.g. via lobbying, mergers with each other, litigation, and cooperative behavior), their current industry environment, and their incumbent management. The LECs have a poor record in innovation, R&D, the standardization and

the “capability” of supporting a high-bandwidth digital service that a CLEC wishes to provide—even if the incumbent LEC has for some reason chosen not to take full advantage of that capability—it is fully appropriate and, indeed, even necessary for the Commission to establish national rules requiring that such capability be unbundled.⁶⁵

Despite the Commission’s original mandate, actual availability of DSL loops varies considerably nationwide. As documented by several carriers in the *Advanced Wireline Services* docket, many ILECs do not generally make available loops certified to support DSL signals, despite current federal law requiring that availability.⁶⁶

Many ILECs have become very picky in how they unbundle loops—unless the FCC rule is crystal clear and the CLEC has a desire and the will to enforce the rule, the ILEC will evade its obligations. Therefore, in order to encourage deployment of advanced services to all Americans, the Commission should ensure that loops certified to support innovative DSL technologies be immediately and readily available, independent of ILEC DSL deployment plans.⁶⁷

deployment of new technologies, investment in network modernization, delivery of price-performance improvements to customers, customer service, management of open systems architectures, success in real competition, and even in internal use of their own technologies and services. Perhaps most seriously, the price/performance of LEC services, including both digitally implemented voice services and data services such as ISDN and T1, has improved little and sometimes even deteriorated over the past decade. This is an astonishing situation given that most of the underlying technologies for these services improve 40%-60% per year.

Id. at 46.

⁶⁵ Section 3(29) of the Act defines a network element to include the “capabilities” of a network facility.

⁶⁶ SBC and Bell Atlantic show no signs of budging on this issue, given their outstanding petitions for reconsideration of the Commission’s *First Advanced Wireline Services Order*.

⁶⁷ Not only must digital ready loops be available, all competitors must have identical access to information relating to their physical and electronic characteristics as well as verification (testing) systems.

b. Unbundling xDSL Loops over Remote Terminals.

The absence of ILEC implementation of a universal DSL-conditioned loop rule has presented considerable issues if a customer's loop passes through a remote terminal/digital loop carrier ("RT" or "DLC") device. Currently, Covad has two options when faced with an order from a customer living in an area served by an DLC system: (1) obtain a twisted pair work around from the ILEC (often at considerable additional cost, if the ILEC even agrees to do it),⁶⁸ or (2) should the DLC support ISDN, pay the ILEC to install an ISDN-compatible line card in the remote terminal that supports IDSL (ISDN DSL) service, which has a maximum speed of 144 kbps. Not every ILEC provides Covad either or both of these solutions.

In their own deployment of ADSL services, ILECs are confronting these technical challenges and are working on technical solutions. U S WEST is currently deploying DSLAMs at its DLC terminals, by placing that equipment "in the field adjacent to metal cabinets that house DLCs."⁶⁹ Bell Atlantic and GTE are also working on solutions for their own ADSL services.

The key issue is whether the Commission will draft its loop rule in a way that gives CLECs the ability to take advantage of the solutions being developed or deployed by the ILECs, or whether the Commission will sit back and let an entire class of customers remain

⁶⁸ In ¶ 170 of the *First Advanced Wireline Services NPRM*, the Commission correctly observed that this work-around would impact available bandwidth.

⁶⁹ U S WEST, "U S WEST Unveils Technology Enhancements that Nearly Double Number of Customers who can Receive its Lightning-fast ADSL Internet Service," Oct. 28, 1998, <http://www.uswest.com/news/102898.html>.

“unreachable” by competitive xDSL providers. Quite simply, ILECs should not be permitted to deploy electronics in their loop plant that will render those loops “unbundleable” for competitive xDSL providers.⁷⁰ Covad strongly believes that the purpose of Section 706 of the Act requires the Commission to address this issue head-on.

Solutions to this issue exist, they just have not been fully implemented by the ILECs. Two stand out in particular, Covad believes that the CLEC should have its choice of methods.

First, next generation RT/DLC systems can be designed or re-engineered to permit ILECs and CLECs to place DSLAMs of their choosing in a separate or adjacent RT or on top of the original RT. Under this scenario, the copper wire from the customer premises to the RT would be unbundled and priced as a subloop element. In the event that CLECs are afforded this option, the CLEC should also be given the opportunity to order unbundled local transport from the RT back to the CLEC’s collocation node at the serving wire center, so as to complete the connection circuit.⁷¹ Provision of this transport—like any other form of unbundled local transport—would included multiplexing/de-multiplexing at the central office so as to deliver the signal to the CLEC’s collocation node.

⁷⁰ In the *First Local Competition Order* at ¶ 383, the Commission clearly stated:

If we did not require incumbent LECs to unbundle IDLC-delivered loops, end users served by such technologies would not have the same choice of competing providers as end users served by other loop types. Further, such an exception would encourage incumbent LECs to ‘hide’ loops from competitors through the use of IDLC technology.

In this proceeding, the Commission needs to restate this fundamental principle, to pound the point into the ILECs that did not understand it the first time around.

⁷¹ Southwestern Bell Telephone Company has taken the strange position in an interconnection arbitration with Covad and Rhythms that although it would agree to provide CLECs with subloop access at the remote terminal, it would not provide transport from that terminal to the central office on an unbundled basis.

The second solution would be for the ILEC to deploy next-generation RTs and DSLAMs at those RTs that accept several different types of suitable digital line cards. The first step in this process would be to require ILECs to deploy RT or DLC devices that meet Telcordia (Bellcore) standards and requirements. In addition, the Commission should define the local loop element in a manner that gives the CLEC the option to have the ILEC install a suitable digital line card of the CLEC's choosing at a remote terminal and obtain de-multiplexing capability at the relevant central office. The process of installing a suitable line card at a remote terminal is *precisely* the sort of work that ILECs perform at those terminals *every day* in providing ISDN, analog or even T-1/HDSL services. Simply applying this principle to next-generation DLCs and DSL line cards of the CLEC's choosing is, in Covad's opinion, the swiftest means of ensuring broadband deployment to these neighborhoods.

This menu of unbundling solutions will give CLECs the ability to insert the appropriate level of intelligence into the network demanded by their customers. A menu approach to unbundling will, in the end, serve to limit CLECs' dependence upon the technologies that ILECs choose (or do not choose) to place in the network.

c. The National Loop-is-a-Loop Pricing Principle

Policy makers at all levels must realize that the national variance of this essential input is, in and of itself, a deterrent to the speedy and ubiquitous competitive introduction of advanced services. State-by-state differential loop pricing policies have had the effect of impeding interstate commerce while simultaneously discriminating among residents of different states.

In many states, pricing of “DSL” or “Digital” or “Premium” loops has required end-users to pay a premium above the cost of “analog” loops. In many cases, the costs for a digitally-conditioned loop are twice the cost of an analog loop.

There are several significant problems with these disparate pricing regimes. First, these differential pricing rules are generally attempts by incumbent LECs to sneak “historic” cost elements into the forward-looking TELRIC methodology. Second, these differential pricing rules are blatantly discriminatory—they make distinctions between the price CLECs pay for the element on the sole basis of the services (data) that Covad provides over this element.⁷² As a result, these pricing rules constitute a form of cross-subsidy between digital loop rates and analog loop rates, which is not permitted under the Commission’s pricing rules.

Third, and most importantly, differential pricing rules are not accurate reflections of the most-efficient current and foreseeable technology required by TELRIC. Indeed, in a true forward-looking network, outside plant would be constructed to support a mixture of analog and digital services.

Attachment 2 to these comments is a recent decision by the Michigan Public Service Commission, which is a clear and cogent discussion about how a true forward-looking cost analysis to the pricing of unbundled loops.⁷³ The Michigan Commission ruled that, in short, conditioning loops for analog or digital services are pigs of the same litter,

⁷² The overwhelming majority of loops, approximately 75% on a national (but not regional) basis, are less than 18,000 feet in length, are simple, unaugmented (“nonloaded”) twisted pairs of AWG 19, 22, 24, and/or 26 copper wire, and can carry analog transmissions as well as digital signals.

⁷³ *In the matter of the complaint of BRE Communications, L.L.C., d/b/a Phone Michigan, against Ameritech Michigan for violations of the Michigan Telecommunications Act*, Case No. U-11735, Opinion and Order (Mich. P.S.C. Feb. 9, 1999) (Attachment 2).

and that Ameritech's imposition of special construction charges for digital loops was inconsistent with a true forward-looking pricing methodology.

The Commission should make the Michigan decision a national pricing principle for unbundled DSL-compatible loops. There should not be a "DSL tax" placed upon a CLEC that wishes to use ILEC outside plant for competitive xDSL services. Covad recommends the Michigan decision as a model example for this Commission.

d. Installation Intervals.

In addition, the Commission's loop rule should contain uniform installation intervals. To date, ILEC performance in providing unbundled loops to CLECs like Covad has been abysmal.⁷⁴ Covad believes that conditioned loops can be provided by the ILEC within five business days, and the ILEC should face certain, swift, and substantial performance penalties if it misses that interval.

B. Dedicated Interoffice Transport

Incumbent LEC interoffice transport networks are just as ubiquitous as local loops. These networks—constructed with rights-of-way and oftentimes eminent domain authority granted during the period of monopoly status—connect *every* ILEC central office or serving wire center to one another in order to support telecommunications services.

It is hard to overstate the importance of this ubiquity and the competitive advantage that these ubiquitous interoffice transport networks give the incumbent LEC. The ability to connect *any* end user to *any other point* in the local network is a service that only incumbent LECs can provide—and it is dedicated interoffice transport that makes this

⁷⁴ See Attachment 4, Affidavit of Mike Clancy.

service available. Those economies of scale and connectivity derive solely from the ILECs' incumbent status.

Data CLECs like Covad make substantial use of ILEC dedicated interoffice transport facilities. Attachment 3 is a joint affidavit of Mark Shipley, Covad Manager of Transport Services, and David Rauschenberg, Covad Senior Network Engineer. The Shipley/Rauschenberg Affidavit describes how Covad utilizes interoffice transport in designing and constructing xDSL networks. In a typical market build, Covad will collocate in several dozen central offices, and Covad needs to connect those offices to Covad "hubs" with DS3 transport.⁷⁵ Each market might have two to three such hubs.

For purposes of this proceeding, Shipley/Rauschenberg studied the transport architecture and available alternatives in four regional Covad networks—San Francisco Bay Area, Chicago, New York Tri-State, and Washington DC. These four regions are commonly understood as markets with more fiber CLEC participants than other Covad markets. The results of their study is very significant—Covad is highly dependent on ILEC dedicated transport in those markets for well over 83% of Covad's demand for interoffice transport. In other markets with less fiber CLEC presence, Covad is even more dependent upon unbundled dedicated transport.⁷⁶

Another point raised by Shipley and Rauschenberg is that Covad's blanket collocation entry strategy will make it *ever-increasingly dependent* upon ILEC transport. The simple fact is that the physical collocation process—however bumbling the ILECs may

⁷⁵ Covad finds that it often becomes one of the ILEC's top transport "customers" in each metropolitan area it builds out in.

make it—occurs much faster than CLEC fiber networks are built.⁷⁷ As Covad collocates in more residential and rural areas, its dependence on dedicated ILEC transport will grow over time.

1. The Necessary and Impair Considerations

Covad strongly believes that there are not adequate alternative suppliers (under both the “necessary” and “impair” tests) to meet its interoffice dedicated transport needs. Covad requires interoffice transport to provide *each* of the dozens of offices it has collocated equipment with a dedicated DS3 (45 Mbps) connection to the nearest Covad “hub”. Covad’s dependence upon the ILEC interoffice transport network stem from one primary fact—Covad’s demand for interoffice transport is inherently “point-to-point.” A non-ILEC alternative supplier that cannot provide that particular point-to-point connection is irrelevant to Covad.

Even in Major Cities, Point-to-Point Transport Substitutes are Rarely Available.

Although there has been growth in fiber CLEC deployment, that deployment is far from “catching up” to Covad’s blanket collocation strategy, and may never catch up, in fact. Covad typically collocates in dozens, many times over 100 offices in a metropolitan area. Fiber CLECs may establish collocation nodes in 6-12 of those office.

The Shipley/Rauschenberg Affidavit make it abundantly clear that for nearly 84% of Covad’s demand for particular point-to-point interoffice circuits, it has no alternative but the ILEC interoffice network.⁷⁸

⁷⁶ Attachment 3, Affidavit of Mark Shipley and David Rauschenberg, May 24, 1999 at ¶¶ 14-21, Table 1.

⁷⁷ *Id.* at ¶ 28.

These results are not surprising. While fiber CLECs have deployed fiber rings in metropolitan areas and sell circuits on those rings to companies like Covad, those fiber rings are designed to connect customer premises with the fiber CLEC's hub or switch. As a result, fiber CLEC networks are *not* optimized for and designed to provide interoffice transport—connections between ILEC central offices where CLECs have collocated equipment.⁷⁹

This different engineering model has real world consequences for Covad. CLEC fiber termination facilities in ILEC central offices are not nearly as ubiquitous as the ILEC interoffice network. In the four metropolitan areas studied by Shipley and Rauchenberg, Covad has a choice of multiple fiber CLECs for interoffice transport in less than 7% of its point-to-point interoffice links. Thus, for the vast majority of point-to-point (CO to hub) routes that Covad and other data CLECs require, there is *no* alternative to the ILEC interoffice network. Unbundled access is clearly necessary.

Supply Elasticity: Potential Lack of Fiber CLEC Capacity. Even where alternatives may be available on a particular route, the Commission must recognize that fiber ring capacity is not unlimited, especially at the DS3 and OCx levels that Covad requires for dedicated interoffice transport. Therefore, even if a fiber CLEC is theoretically capable of providing a particular point-to-point link, there may not be sufficient capacity on that CLEC fiber ring to support Covad's demand.⁸⁰ ILECs seeking to remove dedicated

⁷⁸ *Id.* at Table 1.

⁷⁹ *Id.* at ¶ 11.

⁸⁰ *Id.* at ¶ 27. Indeed, one observer recently noted that “[t]raditional SONET-ring architecture [deployed by CLECs] faces severe scalability limitations as a long-term transport solution for data.” 1999

transport from the list of elements should be prepared to prove that sufficient fiber CLEC capacity exists to support *all* transport services currently being provided by that ILEC.

Supply Elasticity: Barriers to Entry. In Section III.A above, Covad described the substantial barriers to entry that fiber CLECs face in building SONET rings—the high initial capital costs, the city and municipal permitting process, the ILEC interconnection process, etc. These are serious and substantial barriers to entry that are commonly recognized. As a result, while fiber CLECs make strides every day, they are still not even remotely close to the ubiquity of the ILEC network—amply demonstrated by the results of the Shipley/Rauchenberg study.

Price and Cost Differentials. Some ILECs may argue that their access service tariffs are an “alternative” to unbundled dedicated transport between these central offices. Unfortunately, the price differential between ILEC special access service tariffs and unbundled dedicated transport are so extraordinary that it is not possible to consider these services to be an alternative source of supply. Indeed, the fact that ILEC special access service tariffs *are* so high demonstrates vividly the lack of competition in these markets for so many point-to-point routes.

Shipley and Rauschenberg have compiled a table comparing ILEC UNE dedicated transport rates with ILEC special access rates in four regions.⁸¹ The results showed some marked price differentials. For example, a typical Bell Atlantic DS3 access service in New York City would cost Covad \$3085.02 per month—compared to \$2332.22 if that

Annual CLEC report, Ch. 9 at 7; *see also* Harris Long Distance Affidavit at ¶ 75 (fiber by itself is not “capacity, per se”).

⁸¹ Attachment 3 at ¶¶ 21-25, Table 2.

interoffice facility were acquired as an unbundled element. In Miami, the price increase of BellSouth's access tariff and comparable DS3 UNE transport is a shocking 353% (\$5144/mth for special access DS3; \$1457/mth for DS3 unbundled transport).⁸²

The price differentials can be extraordinary and are clear *indicia* that ILECs are not restrained by sufficient transport competition in these markets. Extreme price differences can be explained by the fact that ILEC special access tariffs are justified under a different standard than UNE rates. Special access tariffs are based upon the traditional Title II "just, reasonable, and non-discriminatory" pricing standard. As a result, an ILEC need only "justify" its terms for the special access tariffs it files before the FCC.

In contrast, the pricing of UNEs is based upon Section 252, forward-looking cost plus a reasonable profit standard.⁸³ The Commission's pricing rules establish a forward-looking pricing methodology for these network elements. It is well-documented (primarily and repeatedly by IXC's) that the forward-looking cost of these access services is considerably *below* traditional ILEC access charge pricing.

Given the number of interoffice transport links that Covad buys, if forced to purchase interoffice transport pursuant to the ILEC tariff rather than through unbundling, Covad would face an immediate, sustainable, and severe increase in interoffice transport costs in several markets, up to 353%.

Other cost considerations related to unbundled transport must also be kept in mind. For instance, since Covad has to acquire collocation space and loops from the ILEC, it has already incurred "account management" costs with ILECs—costs that would have to be

⁸² *Id.* at Table 2.

incurred once again if the Commission permits ILECs to force Covad to acquire interoffice transport from other sources.⁸⁴

2. Other Considerations

Like the national availability of unbundled conditioned loops, national availability of unbundled dedicated transport (at DS3 and OCx levels) would facilitate the rapid development of competition and would promote the deployment of competitive broadband services nationwide. Indeed, Covad stipulates that its need for high-capacity interoffice circuits in places like Santa Rosa, California and Waldorf, Maryland will actually promote the deployment of such high-capacity connections by the ILEC to those towns. To the extent that Covad or another data CLEC purchase unbundled DS3s from the ILEC on an unbundled basis, and if the ILEC needs to expand its capacity to the office to meet this order, it may be more efficient for the ILEC to take advantage of this opportunity to install more capacity to that office, perhaps at an OCx level, that the ILEC may not have installed but-for the DS3 orders from data CLECs. The result would be that the customers served by the office would have high-capacity services available to them that they otherwise may have been denied.

* * *

⁸³ 47 U.S.C. § 252(d)(2)

⁸⁴ *Id.* at ¶ 26.

Any way you slice it, the need for unbundled access to ILEC interoffice transport facilities is clear. Fiber CLECs, while growing, have not deployed networks designed to provide fiber-less CLECs like Covad with interoffice transport and therefore can only supply a small fraction of the number of point-to-point links needed. The capacity of those rival fiber networks to support all supply currently provided by the ILEC has not been established. The shocking differences between ILEC special access tariffs and unbundled dedicated transport pricing essentially demonstrates that ILECs possess market power in this market—when permitted by law, they will sharply increase price and restrict supply. It would be wholly inconsistent with the public interest for the Commission to determine that an actual, competitive wholesale market for these services is present. Other public interest factors, including the need for rapid entry and broadband deployment, also weigh in favor of a national rule ordering unbundled dedicated transport at DS1, DS3 and OCx levels.

C. DS3 Customer Links

In its September, 1998 *Advanced Wireline Services* Comments, Covad proposed that the Commission require ILECs to provide “DS3 Links” between a customer premises and the serving wire center. Covad re-states that proposal here today. *See* Attachment 1, Section 51.319(h).

DS3 links are dedicated, point-to-point digital circuits that provided bandwidth of 45 Mbps. Incumbent LECs commonly provide DS3 links to their own advanced services customers, including ISPs and other end-users of high-bandwidth services. In particular, an ISP might order a DS3 link between its premises and the point-of-presence of another telecommunications carrier or major Internet POP. As the Internet grows and expands, the

local bandwidth needs for ISPs and corporations will cause ever-increasing demand for DS3 circuits.⁸⁵

Provision of a DS3 Link on an unbundled basis is clearly technically feasible. Indeed, Bell Atlantic provides this unbundled network element in the State of New York to CLECs—but it does not make this network element available on an unbundled basis to CLECs in any other state in the Bell Atlantic service territory. Unbundling these links does not involve any proprietary or technical feasibility issue—rather, the only reason that not all ILECs provide these DS3 links on an unbundled basis is because regulators have not required them to do so.⁸⁶

Like unbundled local loops and transport, DS3 Links meet the unbundled network elements meets the standards of Section 251(d)(2) of the Act.

1. Necessary and Impair Considerations

Even more so than interoffice transport, for the vast majority of Covad's point-to-point DS3 customer link needs, alternative substitutes for DS3 links are few and far between. With regard to alternative sources of supply, the availability of DS3 Links from fiber CLECs is limited even more severely than interoffice transport—because the only substitute is a fiber CLEC “Type 1” (on-net) DS3 circuit from a particular customer premises to the Covad network.⁸⁷ As stated above, an estimated 104,097 buildings nationwide are served by fiber CLECs, broadband wireless, and HFC architectures.⁸⁸ For

⁸⁵ Attachment 3 at ¶ 31.

⁸⁶ *Id.* at ¶ 32.

⁸⁷ For a description of the difference between Type 1 and Type 2 transport, see Attachment 3 at ¶ 12.

⁸⁸ *1999 Annual CLEC Report*, Ch. 6, Table 10.

the millions of other buildings in the country, the ILEC is the only option to connect those customers to Covad's DSL network with a DS3 connection.

Like interoffice transport, the difference between service tariffs and unbundled element pricing is substantial—in large part because of the different pricing standards required by Congress. Section 201 only requires that access services be priced in a just, reasonable and nondiscriminatory manner, while Section 251 and Commission rules require that prices for UNEs be based on forward-looking costs plus a “reasonable profit.” Like interoffice transport, these two different pricing methodologies result in remarkably different prices for DS3 Links.⁸⁹

2. Other Considerations

Availability of DS3 Links would substantially promote entry nationwide. Under current circumstances, the pricing and availability of DS3 Links varies so widely that Covad has to make an educated guess about the cost of a DS3 customer link during the sales process. Customers—especially ISPs with multiple POPs in several cities—do not understand the large and very substantial price and availability differences there might be between a DS3 Link in New York, Washington DC, Atlanta, and Los Angeles. As a result, clear and certain national unbundled availability and national pricing rules would promote competitive broadband entry nationwide.

Indeed, the availability of DS3 customer links is a significant competitive issue for xDSL services. Competition between data CLECs and ILECs in the xDSL arena currently

⁸⁹ Attachment 3 at ¶ 34.

focuses on competition for orders from Internet Service Providers ("ISPs").⁹⁰ In particular, a carrier cannot provide xDSL service to an ISP's customers until that carrier has hooked up that ISP to the carrier's high-speed backbone network with a high-capacity connection, typically a DS3. In their own ADSL roll-out, ILECs bundle the sale of DS3 customer links to end-user ADSL circuits, taking full advantage of the economies of scale, scope and density that their ubiquitous network provides. If Covad and other data CLECs cannot obtain DS3 links on comparable economies of scale, scope and density, these new entrants will be at a competitive disadvantage.

D. Availability of Related OSS

Whenever the Commission orders the availability of a particular element, CLECs of course need actual, nondiscriminatory access to the OSS needed to pre-order, order, install, and repair/maintain the particular element.⁹¹

In defining OSS element(s), the Commission should pay particular attention to OSS information relevant to the provision of advanced, xDSL services. Deployment of these services would be advanced if ILECs would provide CLECs with detailed loop information sufficient to make its own determination of what xDSL equipment and service a loop is capable of supporting. Covad is aware that ILECs have assembled such information in advance to support their own provision of ADSL services. It is essential, therefore, that

⁹⁰ Attachment 3 at ¶ 35.

⁹¹ Indeed, Covad believes that rather than defining OSS as a separate element, it should be defined as an integral part of the underlying element. Covad has noticed a disturbing trend among ILECs to propose special additional monthly "charges" for OSS for particular elements which, in Covad's opinion, are nothing more than attempts to increase in underlying UNE prices.

Covad have efficient access to accurate electronic information about relevant operational parameters regarding ILEC constructed and maintained loop facilities.

Information relating to loop length, the presence of analog load coils, presence and number of bridge taps, and the presence and type of a DLC should be catalogued, inventoried, and made available directly to CLECs through automated OSS. The OSS ultimately needs to take into account spectral interference and binder group management aspects that are the subject of the *Advanced Wireline Services* proceeding.

This loop information needs to be available even if the ILEC has—for whatever reason—chosen not to provide xDSL services out of a particular central office.⁹² In addition, ILECs should be required to utilize *the same* OSS to support the provision of their own xDSL services. When it comes to OSS, Covad strongly believes that a separate CLEC OSS will never be equal.

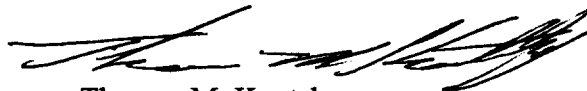
IV. CONCLUSION

The Commission has an opportunity in this proceeding to take advantage of three years experience with unbundling and write national unbundled element rules that clearly list ILEC obligations, leave no wiggle room, and promote rapid competitive entry into telecommunications markets and the competitive deployment of broadband services to all Americans.

⁹² As described above, Bell Atlantic does not “pre-qualify” loops for xDSL in offices where it does not provide retail ADSL services. This is a discriminatory application of ILEC resources.

Covad's proposed substantive standard and procedural rules for identifying unbundled elements that must be made available on a national basis give full effect to the text of Section 251(d)(2) and the Supreme Court's decision in *Iowa*, while also minimizing the potential for ILEC gamesmanship of this UNE-definition process. In particular, ILECs should bear a strong burden in this and other proceedings to prove that a requested elements should not be provided on an unbundled basis. Covad believes that ILECs should bear a strong burden if they argue that any element originally ordered by the Commission in the *First Local Competition Order* and subsequent proceedings, such as the *First Advanced Wireline Services Order*, should no longer be available on an unbundled basis. Therefore, while Covad has also presented strong evidence that supports unbundling of four particular elements—loops, dedicated transport, DS3 Links, and OSS—it reserves the right to supplement this record with further factual showings in the future.

Respectfully submitted,



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